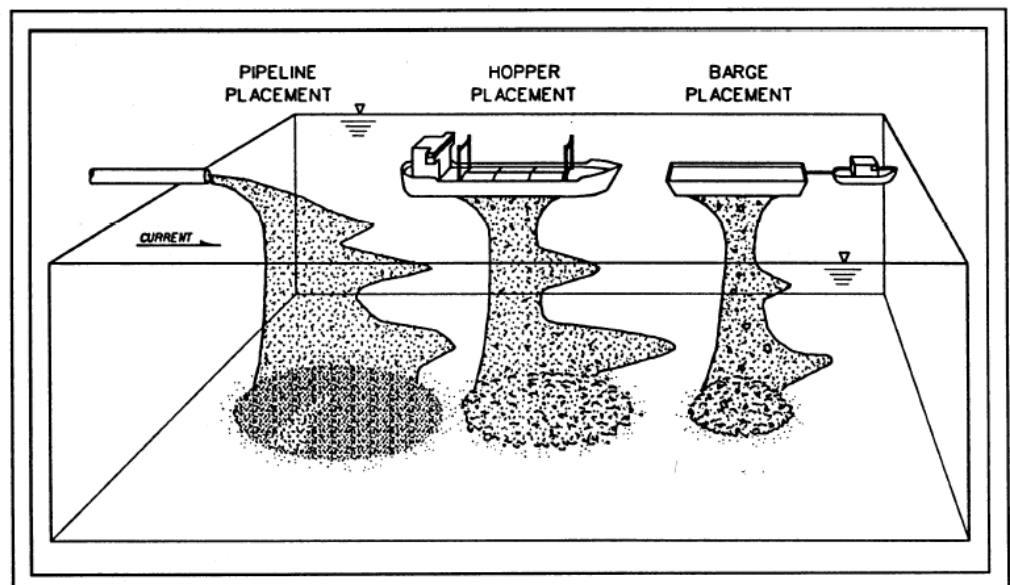
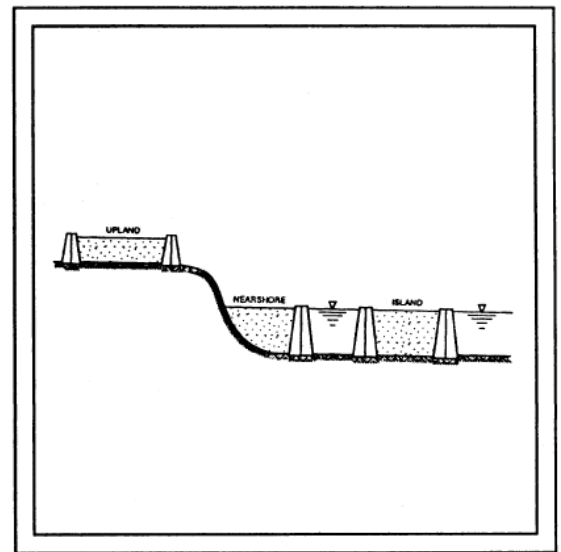
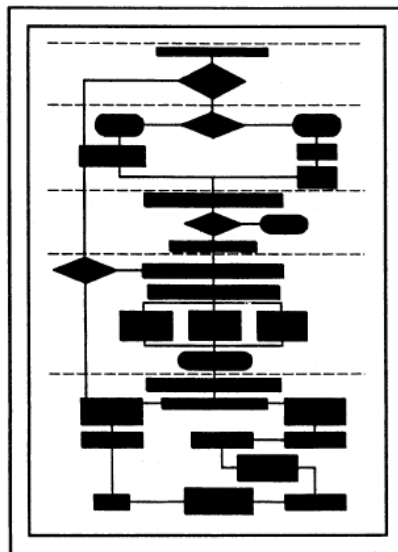




US Army Corps
of Engineers

Evaluating Environmental Effects of Dredged Material Management Alternatives— A Technical Framework



**United States Environmental Protection Agency
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Department of The Army
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PREFACE

The U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (USEPA) share the responsibility of regulating dredged material management activities under the Marine Protection, Research, and Sanctuaries Act (MPRSA), and the Federal Water Pollution Control Act Amendments of 1972, also called the Clean Water Act (CWA). Such management activities must also comply with the applicable requirements of the National Environmental Policy Act (NEPA).

This document provides a consistent technical framework for USACE and USEPA personnel to follow in identifying environmentally acceptable alternatives for the management of dredged material. The framework presented herein is consistent with and meets the substantive and procedural requirements of NEPA, CWA, and MPRSA and is applicable to dredged material management alternatives. The technical guidance provided by other documents such as the MPRSA and CWA testing manuals should be applied within this framework. Application of this framework will enhance consistency and coordination in USACE/USEPA decision making in accordance with Federal environmental statutes regulating dredged material management.

This manual was prepared by a joint USACE/USEPA work group consisting of the following members: Dr. Michael R. Palermo, Mr. Norman R. Francingues, and Dr. Thomas Wright, Environmental Laboratory, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS; Mr. Jim Reese, U.S. Army Engineer Division, North Pacific, Portland, OR; Dr. Susan Ivester Rees, U.S. Army Engineer District, Mobile, Mobile, AL; Mr. David Mathis, Headquarters, U.S. Army Corps of Engineers, Washington, DC; Ms. Shannon Cuniff, Mr. John Goodin, Mr. Tom Chase, Mr. Mike Kravitz, Mr. Barry Burgan, and Mr. John Lishman, Headquarters, USEPA, Washington, DC; Dr. Bill Muir, USEPA, Region III, Philadelphia, PA; Mr. Bob Howard, USEPA, Region IV, Atlanta, GA; and Mr. John Malek, USEPA, Region X, Seattle, WA. Much of the information in this manual was taken from various USACE and USEPA publications, and the contributions of the original authors are gratefully acknowledged. The manual was updated in 2004 to reflect the publication of the Inland Testing Manual, the Upland Testing Manual and other recent references. This work was completed by Trudy J. Estes, Michael R. Palermo, and Paul R. Schroeder, Environmental Laboratory, Environmental Research and Development Center Waterways Experiment Station (ERDC WES).

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ACRONYMS

ADDAMS	- Automated Dredging and Disposal Alternatives Management System
ARCS	- Assessment and Remediation of Contaminated Sediments
ASTM	- American Society for Testing and Materials
CAMP	- Comprehensive Analysis of Migration Pathways
CDF	- Confined Disposal Facility
CEQ	- Council on Environmental Quality
CFR	- Code of Federal Regulations
CWA	- Clean Water Act
DOTS	- Dredging Operations Technical Support
DTPA	- Diethylenetriamine-pentaacetic Acid
EA	- Environmental Assessment
EIS	- Environmental Impact Statement
EM	- Engineer Manual
ER	- Engineer Regulation
ERDC WES	- Environmental Research and Development Center Waterways Experiment Station
FONSI	- Finding of No Significant Impact
HELPQ	- Hydrologic Evaluation of Leachate Production and Quality
HELP	- Hydrologic Evaluation of Landfill Performance
LDC	- London Dumping Convention
MEPAS	- Multimedia Environmental Pollutant Assessment System
MPRSA	- Marine Protection, Research, and Sanctuaries Act
NED	- National Economic Development
NEPA	- National Environmental Policy Act
PCB	- Polychlorinated Biphenyls
PUP	- Plant Uptake Program
ROD	- Record of Decision
S/S	- Solidification/Stabilization
SLRP	- Simplified Laboratory Runoff Procedure
SOF	- Statement of Findings
USACE	- U.S. Army Corps of Engineers
USEPA	- United States Environmental Protection Agency
UV	- Ultraviolet light